

WHAT IS CLAIMED IS:

1 1. A method for providing electronic delivery of electronic model images, the
2 method comprising:
3 generating one or more electronic model images, a portion of the electronic model
4 images being generated from scanned electronic data of a physical object;
5 storing the electronic model images within computer readable memory of a server-
6 based computing system;
7 delivering the electronic model images to a remote client computer over a distributed
8 communications network;
9 manipulating the electronic model images upon the remote client computer; and
10 performing analysis and a course of action using the manipulated electronic model
11 images;
12 wherein the electronic model images comprise in part a polygonal mesh representation
13 of the physical object.

1 2. The method according to claim 1, wherein the method further comprises:
2 generating a new electronic model image using the manipulated electronic model image.

1 3. The method according to claim 2, wherein the method further comprises:
2 storing the electronic model images within computer readable memory of the remote
3 client computer.

1 4. The method according to claim 1, wherein the generating one or more electronic
2 model images comprises:

3 combining the polygonal mesh representation of the physical object with one or more
4 electronic model image of a different type that is related to the physical object.

1 5. The method according to claim 4, wherein the one or more electronic model
2 image of a different type comprise one or more of the following types of digital images:
3 scanned x-ray images, scanned photographic images, and computer generated images.

1 6. The method according to claim 1, wherein the distributed computer network
2 comprises the Internet.

1 7. The method according to claim 1, wherein manipulating the electronic model
2 images comprises:

3 displaying the electronic model images on a visual display device;

4 altering the scale and orientation of the electronic model images in response to user
5 generated commands; and

6 determining numeric values associated with physical characteristics of the physical
7 object using the electronic model images.

1 8. The method according to claim 7, wherein manipulating the electronic model
2 images further comprises:

3 moving one or more portions of the electronic model image relative to other portions
4 of the electronic model image on the visual display device to determine the interaction of the
5 corresponding portions of the physical object.

1 9. A method for providing electronic delivery of electronic model images, the
2 method comprising:

3 generating one or more electronic model images, a portion of the electronic model
4 images being generated from scanned electronic data of a physical object;

5 storing the electronic model images within computer readable memory of a server-
6 based computing system;

7 delivering the electronic model images to a remote client computer over a distributed
8 communications network;

9 manipulating the electronic model images upon the remote client computer;

10 performing analysis and a course of action using the manipulated electronic model
11 images;

12 generating a new electronic model image using the manipulated electronic model image;

13 and

14 storing the electronic model images within computer readable memory of the remote
15 client computer;

16 wherein the electronic model images comprise in part a polygonal mesh representation
17 of the physical object; and

18 manipulating the electronic model images comprises:

19 displaying the electronic model images on a visual display device;
20 altering the scale and orientation of the electronic model images in response to
21 user generated commands;
22 determining numeric values associated with physical characteristics of the
23 physical object using the electronic model images; and
24 moving one or more portions of the electronic model image relative to other
25 portions of the electronic model image on the visual display device to determine the
26 interaction of the corresponding portions of the physical object.

1 10. The method according to claim 9, wherein the generating one or more electronic
2 model images comprises:

3 combining the polygonal mesh representation of the physical object with one or more
4 electronic model image of a different type that is related to the physical object;

5 the one or more electronic model image of a different type comprise one or more of
6 the following types of digital images: scanned x-ray images, scanned photographic images, and
7 computer generated images; and

8 the distributed computer network comprises the Internet.

1 11. A method for providing electronic model image data files to a remote client
2 computer using a server-based computing system over a distributed communications
3 network, the method comprising:

4 receiving an electronic model image data files by the server-based computing system;

5 storing the electronic model image data files within non-volatile computer readable
6 memory within the server-based computing system;
7 receiving a search query from the remote client computer to identify one or more
8 electronic model image data files;
9 receiving a file transfer request from the remote client computer requesting one or
10 more electronic model image data files; and
11 transmitting one or more electronic model image data files to the remote client
12 computer;
13 wherein the electronic model image data files comprise:
14 a file header info data block containing data used to identify a physical object
15 represented by the electronic model image data file; and
16 an electronic model image, a portion of the electronic model image containing a
17 polygonal mesh representation of the physical object generated from scanned
18 electronic data of a physical object.

1 12. The method according to claim 11, wherein the electronic model image
2 comprises:
3 the polygonal mesh representation of the physical object; and
4 one or more electronic model image of a different type that is related to the physical
5 object.

1 13. The method according to claim 12, wherein the one or more electronic model
2 image of a different type comprise one or more of the following types of digital images:
3 scanned x-ray images, scanned photographic images, and computer generated images.

1 14. The method according to claim 11, wherein the distributed computer network
2 comprises the Internet.

1 15. The method according to claim 11 wherein the storing the electronic model
2 image data files comprises:

3 storing the file header info data extracted from the file header info data block into a
4 relational database for use in processing the search queries received from the remote client
5 computer; and

6 storing the electronic model image data files into a file storage database for use in
7 processing file transfer requests received from the remote client computer.

1 16. A computer program data product readable by a computing system and
2 encoding instructions implementing a method for providing electronic model image data files
3 to a remote client computer using a server-based computing system over a distributed
4 communications network, the method comprising:

5 receiving an electronic model image data files by the server-based computing system;

6 storing the electronic model image data files within non-volatile computer readable
7 memory within the server-based computing system;

8 receiving a search query from the remote client computer to identify one or more
9 electronic model image data files;
10 receiving a file transfer request from the remote client computer requesting one or
11 more electronic model image data files; and
12 transmitting one or more electronic model image data files to the remote client
13 computer;
14 wherein the electronic model image data files comprise:
15 a file header info data block containing data used to identify a physical object
16 represented by the electronic model image data file; and
17 an electronic model image, a portion of the electronic model image containing a
18 polygonal mesh representation of the physical object generated from scanned
19 electronic data of a physical object.

1 17. The computer data product according to claim 16, wherein the electronic
2 model image comprises:
3 the polygonal mesh representation of the physical object; and
4 one or more electronic model image of a different type that is related to the physical
5 object.

1 18. The computer data product according to claim 17, wherein the one or more
2 electronic model image of a different type comprise one or more of the following types of
3 digital images: scanned x-ray images, scanned photographic images, and computer generated
4 images.

1 19. The computer data product according to claim 16, wherein the distributed
2 computer network comprises the Internet.

1 20. The computer data product according to claim 16, wherein the storing the
2 electronic model image data files comprises:

3 storing the file header info data extracted from the file header info data block into a
4 relational database for use in processing the search queries received from the remote client
5 computer; and

6 storing the electronic model image data files into a file storage database for use in
7 processing file transfer requests received from the remote client computer.

1 21. A server based computing system for providing electronic model image data
2 files to a remote client computer over a distributed communications network, the computing
3 system comprises:

4 a communications connection to the distributed communications network;

5 a communications server module for receiving remotely generated electronic model
6 image data files, receiving search query requests from the remote client computer, and
7 transmitting a requested electronic model image data file to the remote client computer in
8 response to a file transfer request;

9 a relational database module for maintaining a electronic model image description in a
10 relational database corresponding to each received electronic model image data file for use in
11 processing the search queries received from the remote client computer; and

12 a file storage module for storing the electronic model image data files for use in
13 processing file transfer requests received from the remote client computer;
14 wherein the electronic model image data files comprise:
15 a file header info data block containing data used to identify a physical object
16 represented by the electronic model image data file; and
17 an electronic model image, a portion of the electronic model image containing a
18 polygonal mesh representation of the physical object generated from scanned
19 electronic data of a physical object.

1 22. The computing system according to claim 21, wherein the electronic model
2 image comprises:
3 the polygonal mesh representation of the physical object; and
4 one or more electronic model image of a different type that is related to the physical
5 object.

1 23. The computer system according to claim 22, wherein the one or more
2 electronic model image of a different type comprise one or more of the following types of
3 digital images: scanned x-ray images, scanned photographic images, and computer generated
4 images.

1 24. The computer system according to claim 22, wherein the electronic model
2 image description comprises file header info data extracted from the file header info data block
3 within the electronic model image data file.

1 25. The computer system according to claim 24, wherein the distributed computer
2 network comprises the Internet.

1 26. A method for receiving electronic model image data files by a remote client
2 computer from a server-based computing system over a distributed communications network,
3 the method comprising:

4 transmitting a search query from the remote client computer to the server-based
5 computing system to identify one or more electronic model image data files stored within the
6 server-based computing system;

7 transmitting a file transfer request from the remote client computer to the server-based
8 computing system requesting one or more electronic model image data files;

9 receiving one or more electronic model image data files;

10 manipulating the electronic model images upon the remote client computer; and

11 performing analysis and a course of action using the manipulated electronic model
12 images;

13 wherein the electronic model image data files comprise:

14 a file header info data block containing data used to identify a physical object
15 represented by the electronic model image data file; and

16 an electronic model image, a portion of the electronic model image containing a
17 polygonal mesh representation of the physical object generated from scanned
18 electronic data of a physical object.

1 27. The method according to claim 26, wherein the electronic model image
2 comprises:
3 the polygonal mesh representation of the physical object; and
4 one or more electronic model image of a different type that is related to the physical
5 object.

1 28. The method according to claim 27, wherein the one or more electronic model
2 image of a different type comprise one or more of the following types of digital images:
3 scanned x-ray images, scanned photographic images, and computer generated images.

1 29. The method according to claim 28, wherein the distributed computer network
2 comprises the Internet.

1 30. The method according to claim 26, wherein the method further comprises:
2 generating a new electronic model image using the manipulated electronic model image.

1 31. The method according to claim 30, wherein the method further comprises:
2 storing the electronic model images within computer readable memory of the remote
3 client computer.

1 32. The method according to claim 26, wherein manipulating the electronic model
2 images comprises:
3 displaying the electronic model images on a visual display device;
4 altering the scale and orientation of the electronic model images in response to user
5 generated commands; and

6 determining numeric values associated with physical characteristics of the physical
7 object using the electronic model images.

1 33. The method according to claim 32, where manipulating the electronic model
2 images further comprises:

3 moving one or more portions of the electronic model image relative to other portions
4 of the electronic model image on the visual display device to determine the interaction of the
5 corresponding portions of the physical object.

1 34. A method for receiving electronic model image data files by a remote client
2 computer from a server-based computing system over a distributed communications network,
3 the method comprising:

4 transmitting a search query from the remote client computer to the server-based
5 computing system to identify one or more electronic model image data files stored within the
6 server-based computing system;

7 transmitting a file transfer request from the remote client computer to the server-based
8 computing system requesting one or more electronic model image data files;

9 receiving one or more electronic model image data files;

10 manipulating the electronic model images upon the remote client computer; and

11 performing analysis and a course of action using the manipulated electronic model
12 images;

13 wherein

14 manipulating the electronic model images comprises:

15 displaying the electronic model images on a visual display device;
16 altering the scale and orientation of the electronic model images in response to
17 user generated commands;
18 determining numeric values associated with physical characteristics of the
19 physical object using the electronic model images; and
20 moving one or more portions of the electronic model image relative to other
21 portions of the electronic model image on the visual display device to determine the
22 interaction of the corresponding portions of the physical object; and
23 the electronic model image data files comprise:
24 a file header info data block containing data used to identify a physical object
25 represented by the electronic model image data file; and
26 an electronic model image, a portion of the electronic model image containing a
27 polygonal mesh representation of the physical object generated from scanned
28 electronic data of a physical object.

1 35. The method according to claim 34, wherein the method further comprises:
2 generating a new electronic model image using the manipulated electronic model image;
3 and
4 storing the electronic model images within computer readable memory of the remote
5 client computer.

1 36. A computer program data product readable by a computing system and
2 encoding instructions implementing a method for receiving electronic model image data files

3 by a remote client computer from a server-based computing system over a distributed
4 communications network, the method comprising:
5 transmitting a search query from the remote client computer to the server-based
6 computing system to identify one or more electronic model image data files stored within the
7 server-based computing system;
8 transmitting a file transfer request from the remote client computer to the server-based
9 computing system requesting one or more electronic model image data files;
10 receiving one or more electronic model image data files;
11 manipulating the electronic model images upon the remote client computer; and
12 performing analysis and a course of action using the manipulated electronic model
13 images;
14 wherein the electronic model image data files comprise:
15 a file header info data block containing data used to identify a physical object
16 represented by the electronic model image data file; and
17 an electronic model image, a portion of the electronic model image containing a
18 polygonal mesh representation of the physical object generated from scanned
19 electronic data of a physical object.

1 37. The computer data product according to claim 36, wherein the electronic
2 model image comprises:
3 the polygonal mesh representation of the physical object; and

4 one or more electronic model image of a different type that is related to the physical
5 object.

1 38. The computer data product according to claim 37, wherein the one or more
2 electronic model image of a different type comprise one or more of the following types of
3 digital images: scanned x-ray images, scanned photographic images, and computer generated
4 images.

1 39. The computer data product according to claim 38, wherein the distributed
2 computer network comprises the Internet.

1 40. The computer data product according to claim 36, wherein the method further
2 comprises:
3 generating a new electronic model image using the manipulated electronic model image.

1 41. The computer data product according to claim 40, wherein the method further
2 comprises:
3 storing the electronic model images within computer readable memory of the remote
4 client computer.

1 42. The computer data product according to claim 36, wherein manipulating the
2 electronic model images comprises:
3 displaying the electronic model images on a visual display device;
4 altering the scale and orientation of the electronic model images in response to user
5 generated commands; and

6 determining numeric values associated with physical characteristics of the physical
7 object using the electronic model images.

1 43. The computer data product according to claim 42, wherein manipulating the
2 electronic model images further comprises:

3 moving one or more portions of the electronic model image relative to other portions
4 of the electronic model image on the visual display device to determine the interaction of the
5 corresponding portions of the physical object.

1 44. A computer program data product readable by a computing system and
2 encoding instructions implementing a method for receiving electronic model image data files
3 by a remote client computer from a server-based computing system over a distributed
4 communications network, the method comprising:

5 transmitting a search query from the remote client computer to the server-based
6 computing system to identify one or more electronic model image data files stored within the
7 server-based computing system;

8 transmitting a file transfer request from the remote client computer to the server-based
9 computing system requesting one or more electronic model image data files; and

10 receiving one or more electronic model image data files;

11 manipulating the electronic model images upon the remote client computer; and

12 performing analysis and a course of action using the manipulated electronic model
13 images;

14 wherein

15 manipulating the electronic model images comprises:
16 displaying the electronic model images on a visual display device;
17 altering the scale and orientation of the electronic model images in response to
18 user generated commands;
19 determining numeric values associated with physical characteristics of the
20 physical object using the electronic model images; and
21 moving one or more portions of the electronic model image relative to other
22 portions of the electronic model image on the visual display device to determine the
23 interaction of the corresponding portions of the physical object; and
24 the electronic model image data files comprise:
25 a file header info data block containing data used to identify a physical object
26 represented by the electronic model image data file; and
27 an electronic model image, a portion of the electronic model image containing a
28 polygonal mesh representation of the physical object generated from scanned
29 electronic data of a physical object.

1 45. The computer data product according to claim 44, wherein the method further
2 comprises:
3 generating a new electronic model image using the manipulated electronic model image;
4 and
5 storing the electronic model images within computer readable memory of the remote
6 client computer.